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September 4, 2009

Mr. Charles L. A. Terreni
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Dr., Suite 100
Columbia, South Carolina 29211

Dear Mr. Terreni:

Pursuant to S.C. Code Ann. §58-9-576, AT&T South Carolina respectfully submits the following tariff pages for filing with the Public Service Commission of South Carolina:

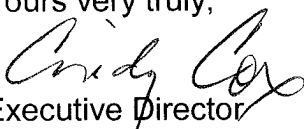
Private Line Services Tariff

Section B7.7

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This Tariff filing introduces a new optional feature, Asymmetrical Arrangements, under the SMARTRing product offering. An asymmetrical arrangement allows a customer to input a lower level interface at one node and aggregate onto a higher level optical interface at another Customer Node.

Yours very truly,


Executive Director

B7. DIGITAL NETWORK SERVICE

B7.6 Reserved for Future Use

B7.7 Self-Healing Multi-Nodal Alternate Route Topology Ring (SMARTRing) Service

B7.7.1 General

- A. SMARTRing service is a dedicated, high capacity, network designed to provide increased reliability and functionality via a self-healing ring topology between multiple customer designated locations and Company Central Offices where facilities can be made available as determined by the Company. This network consists of fiber routed through local, alternate central office, internodal and/or interoffice channel facilities that transmit DS1, DS3, STS-1, OC-3, OC-12, OC-48, **OC-192**, 10 Mbps, 100 Mbps, Fractional 1000 Mbps and/or 1000 Mbps channel services simultaneously over primary and alternate paths between customer designated locations and Company Central Offices. This ring topology will continually monitor DS1, DS3, STS-1, OC-3, OC-12, OC-48, **OC-192**, 10 Mbps, 100 Mbps, Fractional 1000 Mbps and/or 1000 Mbps service quality, detect any failure within the system, and automatically self-heal itself around a point of failure to ensure the flow of DS1, DS3, STS-1, OC-3, OC-12, OC-48, **OC-192**, 10 Mbps, 100 Mbps, Fractional 1000 Mbps and/or 1000 Mbps services between locations within the self-healing network. SMARTRing service further provides an adjunct optional feature and function capability for the establishment of a virtual packet ring which may be utilized for the transport of Basic Shared Ethernet LAN traffic on a best effort basis. For locations where a customer requests SMARTRing service and facilities are not available, construction charges will apply as set forth in Section B5. for cases involving extraordinary cost. (C)

Customers may purchase SMARTRing asymmetrical¹ optical interfaces up to the full ring capacity at a customer node or central office node, as shown in the Channel Interface chart following. For example, an OC-12 SMARTRing may have an OC-12 asymmetrical optical interface and an OC-48 SMARTRing may have an OC-48 asymmetrical optical interface. The interface capacity cannot exceed the node capacity of the host SMARTRing. (N)

- B. SMARTRing service is available at OC-3, OC-3+, OC-12, OC-48, 48+, OC-192 and OC-192+ capacities.

OC-3 SMARTRing service is available as an individual service or in an Overlay Ring Arrangement riding the customer's host OC-12, OC-48, OC-48+, OC-192 or OC-192+ SMARTRing service. OC-3 SMARTRing service provides an equivalent capacity of 3 DS3s, or any combination thereof not to exceed an OC-3 capacity.

Channel Interface Capacity Reallocation allows the customer to reallocate channel interfaces on a node subsequent to the initial installation of the channel interfaces.

Effective December 2, 2004, OC-3+ SMARTRing service is not available for new individual service installations. Existing OC-3+ SMARTRing service installed as an individual service, or in combination with OC-12 SMARTRing service, as of December 2, 2004, may continue in place. OC-3+ SMARTRing service Overlay Ring Arrangements riding the customer's host OC-48, OC-48+, OC-192 or OC-192+ SMARTRing service are available for host rings installed prior to December 2, 2004. OC-3+ SMARTRing service provides an equivalent OC-3 capacity, not to exceed 3 DS3s at each node, with a maximum ring capacity of 12 DS3s, not to exceed an OC-12 ring capacity.

When a customer orders OC-3+ SMARTRing service in combination with OC-12 SMARTRing service, capacity and channel interface availability at each Customer Node and Central Office Node location is determined by the size node ordered by the customer.

OC-12 SMARTRing service is available as an individual service, or in combination with OC-3+ SMARTRing service, or in an Overlay Ring Arrangement riding the customer's host OC-48, OC-48+, OC-192, or OC-192+ SMARTRing service. OC-12 SMARTRing service provides an equivalent capacity of 12 DS3s.

OC-48 SMARTRing service is available as an individual service, or with overlaying rings in capacities of OC-3, OC-3+ and/or OC-12, or in an Overlay Ring Arrangement riding the customer's OC-192 or OC-192+ SMARTRing service. OC-48 SMARTRing service provides an equivalent capacity of 48 DS3s.

Note 1: An asymmetrical arrangement allows a customer to input a lower level interface at one node and aggregate onto a higher level optical interface at another Customer Node. For example, the customer has a four node OC-48 SMARTRing with DS3 interfaces at Nodes A, B and C. The customer wants to aggregate multiple DS3s to Node location D, which can be an OC-48 optical interface. The customer can aggregate up to 48 DS3 interfaces to the OC-48 optical interface at Node D via Connecting Facility Assignments (CFA) in the ordering process. (M) (N)

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B7. DIGITAL NETWORK SERVICE

B7.7 Self-Healing Multi-Nodal Alternate Route Topology Ring (SMARTRing) Service (Cont'd)

B7.7.1 General (Cont'd)

B. (Cont'd)

OC-48+ SMARTRing service is available as an individual bi-directional service, or with overlaying rings in capacities of OC-3, OC-3+ and/or OC-12, or in an Overlay Ring Arrangement riding the customer's OC-192+ SMARTRing service. It provides equivalent capacity of 24 DS3s between consecutive node locations on the ring. The maximum capacity of the OC-48+ SMARTRing service is determined by the number of Customer and Central Office nodes on the ring. For OC-48+ SMARTRing service, the Flex DS1 capability may involve locked STS-1s between two nodes due to the bi-directional attributes of the ring. As such, the quantity of Flex DS1s on an OC-48+ SMARTRing service and their associated attributes are based on equipment capabilities and the customer's service configuration. (T)(M)

OC-192 SMARTRing service is available as an individual service, or with overlaying rings in capacities of OC-3, OC-3+, OC-12 and/or OC-48. OC-192 SMARTRing service provides an equivalent capacity of 192 DS3s. (M)

OC-192+ SMARTRing service is available as an individual bi-directional service, or with overlaying rings in capacities of OC-3, OC-3+, OC-12, OC-48 and/or OC-48+. It provides equivalent capacity of 96 DS3s between consecutive node locations on the ring. The maximum capacity of the OC-192+ SMARTRing service is determined by the number of Customer and Central Office nodes on the ring. For OC-192+ SMARTRing service, the Flex DS1 capability may involve locked STS-1s between two nodes due to the bi-directional attributes of the ring. As such, the quantity of Flex DS1s on an OC-192+ SMARTRing service and their associated attributes are based on equipment capabilities and the customer's service configuration. (T)(M)

(M)

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B7. DIGITAL NETWORK SERVICE

B7.7 Self-Healing Multi-Nodal Alternate Route Topology Ring (SMARTRing) Service (Cont'd)

B7.7.1 General (Cont'd)

B. (Cont'd)

SMARTRing Service Channel Interfaces are available as follows:

<u>Channel Interfaces</u>	<u>NODES</u>							
	OC-3	OC-3+	OC-12	OC-48	OC-48+	OC-192	OC-192+	
DS1	Yes	Yes	No ¹	Yes ¹	No ¹	Yes	No ¹	(M)
DS3	Yes	Yes	Yes	Yes	Yes	Yes	Yes ¹	(M)
STS-1	Yes	Yes	Yes	Yes	Yes	Yes	Yes ¹	(M)
OC-3	No	No	Yes	Yes	Yes	Yes	Yes	(M)
OC-12	No	No	No	Yes	Yes	Yes	Yes	(M)
OC-48	No	No	No	No	No	Yes	Yes	(M)
OC-3 (Asymmetrical Arrangement)	Yes	No	Yes	Yes	Yes	Yes	Yes	(N)
OC-12 (Asymmetrical Arrangement)	No	No	Yes	Yes	Yes	Yes	Yes	(N)
OC-48 (Asymmetrical Arrangement)	No	No	No	Yes	Yes	Yes	Yes	(N)
OC-192 (Asymmetrical Arrangement)	No	No	No	No	No	Yes	Yes	(N)
28 DS1 Channel System (DS3)	Yes	Yes	Yes	Yes	Yes	Yes	Yes ²	(M)
28 DS1 Channel System (STS-1)	Yes	Yes	Yes	Yes	Yes	Yes	Yes ²	(M)
DS3 (Asymmetrical with DS1)	Yes	Yes	No	No	No	No	No	(M)
DS3 (Asymmetrical with Flex DS1)	No	No	Yes	Yes	Yes	Yes	Yes	(M)
DS1 Within an STS-1 Asymmetrical Arrangement	Yes	Yes	No	No	No	No	No	(M)
1000 Mbps	No	No	No	Yes ²	Yes ²	Yes	Yes ²	(M)
10 Mbps	Yes ³	No	Yes ³	Yes ⁴	Yes ⁴	Yes ⁴	Yes ⁴	(M)
100 Mbps	No	No	Yes ³	Yes ⁴	Yes ⁴	Yes ⁴	Yes ⁴	(M)

Note 1: DS1 interfaces are available via OC-3, OC-3+ or 28 DS1 Channel System arrangements only for OC-12, OC-48+ and OC-192+ nodes and for OC-48, OC-48+ and OC-192+ SMARTRing service Nodes installed prior to November 12, 2003. For OC-48 and OC-192 nodes, installed on or after that date to December 2, 2004. DS1 interfaces are available with a maximum quantity per node of 108. (M)

Note 2: DS3, STS-1, channel systems and 1000 Mbps interfaces are only available for nodes installed after November 12, 2003. 1000 Mbps transport channel interfaces do not contain any monitoring capability above the physical layer. (M)

Note 3: 10 Mbps and Fractional 1000 Mbps at 50 Mbps interfaces only are available on OC-3 rings installed on or after May 11, 2006. (M)

Note 4: Available on rings installed on or after December 2, 2004. 10 Mbps, 100 Mbps and Fractional 1000 Mbps transport channel interfaces do not contain any monitoring capability above the physical layer. (M)

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B7. DIGITAL NETWORK SERVICE

B7.7 Self-Healing Multi-Nodal Alternate Route Topology Ring (SMARTRing) Service (Cont'd)

B7.7.1 General (Cont'd)

B. (Cont'd)

SMARTRing Service Channel Interfaces are available as follows:

<u>Channel Interfaces</u>	<u>NODES</u>							
	OC-3	OC-3+	OC-12	OC-48	OC-48+	OC-192	OC-192+	
Fractional 1000 Mbps at 50 Mbps, 150 Mbps, 300 Mbps or 450 Mbps	Yes ¹	No	Yes ²	Yes ²	Yes ²	Yes ²	Yes ²	(M)
Fractional 1000 Mbps at 600 Mbps	No	No	No	Yes ²	Yes ²	Yes ²	Yes ²	(M)
Flex DS1 ⁵	No	No	Yes	Yes	Yes ⁴	Yes	Yes ⁴	(M)
100 Mbps BellSouth Metro Ethernet Backbone	Yes ³	Yes ³	Yes ³	Yes ³	Yes ³	Yes ³	Yes ³	(M)
1000 Mbps BellSouth Metro Ethernet Backbone	No	No	No	Yes ³	Yes ³	Yes ³	Yes ³	(M)

Note 1: 10 Mbps and Fractional 1000 Mbps at 50 Mbps interfaces only are available on OC-3 rings installed on or after May 11, 2006. (T)(M)

Note 2: Available on rings installed on or after December 2, 2004. 10 Mbps, 100 Mbps and Fractional 1000 Mbps transport channel interfaces do not contain any monitoring capability above the physical layer. (T)(M)

Note 3: Effective December 2, 2004, DS1 interfaces for OC-12, OC-48 or OC-192 rings installed on or after this date will be installed as a Flex DS1 interface. The maximum number of DS1 circuits available in a system is 108. (T)(M)

Note 4: Flex DS1 capabilities are as described previously in this Section for OC-48+ SMARTRing service and OC-192+ SMARTRing service. The maximum number of DS1 circuits available in a system is 108. (T)(M)

Note 5: 100 Mbps and 1000 Mbps BellSouth Metro Ethernet Backbone interfaces are for use when SMARTRing service is utilized for transport of a customer's BellSouth Metro Ethernet service. 100 Mbps BellSouth Metro Ethernet Backbone interfaces are further defined regarding the number of STS-1s, utilized in conjunction with the interface. The 100 Mbps (3-STs-1) BellSouth Metro Ethernet Backbone interface is not available for OC-3 nodes. (T)(M)

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B7. DIGITAL NETWORK SERVICE

B7.7 Self-Healing Multi-Nodal Alternate Route Topology Ring (SMARTRing) Service (Cont'd)

B7.7.1 General (Cont'd)

B. (Cont'd)

SMARTRing service OC-3, OC-12, or OC-48 channel interfaces are associated with optical circuits within a SMARTRing service arrangement. These optical circuits may be provisioned as concatenated. When an optical circuit is provisioned as concatenated, the multiple STS-1s within the optical circuit are provided as a single entity with a single overhead channel.

SMARTRing Service channel interfaces for OC-3, OC-12, OC-48 and OC-192¹ asymmetrical arrangements are associated with optical circuits within a SMARTRing Service arrangement. These optical circuit asymmetrical channel interfaces are non-concatenated and may not be provisioned as concatenated. (N)

SMARTRing service interfaces may be ordered as asymmetrical (i.e., a circuit enters one node at a lower level interface and exits at another node at a higher level interface). For example, a customer may have a service that connects to a ring via an OC-3 interface at a node. That service is then transported around the ring and connects via an OC-12 interface to another of the customer's services. The allowable asymmetrical interface arrangements for the various ring sizes are as shown in Technical Reference TR-73582.

The DS3 (Asymmetrical with DS1) interface allows a customer to aggregate DS1s originating from multiple nodes on a ring into a single DS3 interface at a designated node. A DS3 (Asymmetrical with DS1) interface has the capacity to aggregate 28 DS1s.

The DS1 within an STS-1 Asymmetrical Arrangement interface rate element applies in lieu of the STS-1 interface for the higher level termination of an asymmetrical arrangement when the lower level interface is a DS1.

SMARTRing Service Overlay Ring Arrangements are available as follows:

<u>OVERLAYING</u> <u>SMARTRing Service</u>	<u>Host SMARTRing Service</u>				
	OC-12	OC-48	OC-48+	OC-192	OC-192+
OC-3	X	X	X	X	X
OC-3+		X	X	X	X
OC-12		X	X	X	X
OC-48				X	X
OC-48+					X

- C. SMARTRing service is connectible at Company central offices to any compatible high capacity service as provided in Section B7. of this Tariff and to Broadband Exchange Line Service at compatible data rates (e.g., 1.586 Mbps) as provided in Section A40.5 of the General Subscriber Service Tariff. Rates and charges for such other services are as set forth in the applicable sections of this Tariff for such other services.
- D. The customer must provide suitable floor space, controlled environment, and source of non-switched suitable power to support this service.
- E. Where the customer provides two separate entrance facility cable routes for SMARTRing service, the primary and alternate entrance facilities will be separate and will enter the customer node over such different routes. When the customer requests a connection at a Customer Node via two Local Channels and Telephone Company facilities do not exist for the second Local Channel, the Telephone Company may provide an equivalent second Local Channel via an existing alternate route. When facilities become available for the second Local Channel, the Telephone Company may rearrange the alternate route at any time.
- F. The compatibility requirements, technical specifications, and generic requirements for SMARTRing service terminated at the customer's designated locations are referenced in Technical Reference ANSI T1.404-1989, and ANSI T1.403-1989.
- G. DS3 interface combinations and technical specifications are referenced in Bellcore TR-INS-000342.
- H. DS1 interface combinations and technical specifications are referenced in Bellcore TR-NPL-000054.

Note 1: OC-192 channel interfaces are available only in an asymmetrical arrangement (non-concatenated). (N)

B7. DIGITAL NETWORK SERVICE

B7.7 Self-Healing Multi-Nodal Alternate Route Topology Ring (SMARTRing) Service (Cont'd)

B7.7.2 Application of Rates

- A. Monthly rates and charges as specified in B7.7.4 following apply for each SMARTRing service. Customers must specify network capacity at the time of the initial order. In an Overlay Ring Arrangement where a customer's overlaying SMARTRing service rides the customer's host SMARTRing service, the overlay ring will share the transport of the host ring between common node locations. Rate categories at OC-3, OC-3+, OC-12, OC-48, OC-48+ and OC-192+ capacity levels include Customer Nodes, Central Office Nodes, Local Channels, Alternate Central Office Channels, Interoffice Channels and Intermodal Channels. Channel Interfaces are required at each node on the network and must be associated with a SMARTRing service. An OC-3 Overlay Ring Arrangement requires an OC-3 Channel Interface at each node involved. An OC-3+ or OC-12 Overlay Ring Arrangement requires an OC-12 Channel Interface at each node involved. An OC-48/OC-48+ Overlay Ring arrangement requires an OC-48 Channel Interface at each node involved. In Overlay Ring Arrangements, the customer must order a Channel Interface for each entry to or exit from the host ring. In all other situations, the number of Channel Interfaces ordered will depend on whether the customer desires a working interface, or a working interface and a protection interface. The quantity of channel interfaces ordered may not exceed the capacity ordered. When a 28 DS1 Channel System is utilized to activate DS1 channels, the appropriate number of DS1 Channel Interfaces are required in lieu of an originating or terminating DS3 Channel Interface. SMARTRing service interfaces may be ordered as asymmetrical (i.e., a circuit enters one node at a lower level interface and exits at another node at a higher level interface).

- B. Nonrecurring charges for Local, Alternate Central Office, Interoffice and Internodal Channels apply for each channel. When the customer requests two separate routes and the routing is provided as described in B7.7.1.E. preceding, charges apply for the Local Channels and any Interoffice Channels on the requested route. If the Company rearranges the alternate route, nonrecurring charges do not apply for the second Local Channel. Recurring charges for Local, Alternate Central Office, Interoffice and Internodal Channels apply for each quarter air mile increment of the channel. Fractions of a quarter mile will always round up to the next quarter air mile before determining the mileage and applying the rate. For channels which are less than one quarter mile, a minimum charge of one quarter mile applies.

When the customer requests a connection at a Customer Node via two Local Channels and Company facilities do not exist for the second Local Channel, the Company may provide an equivalent second Local Channel as an Alternate Central Office Channel via an existing alternate route. In such event, the customer will be billed Local Channel Mileage charges for such Alternate Central Office Channel, since the customer did not specifically request such option. When facilities become available for the second Local Channel, the Company may rearrange the alternate route at any time. (N)

- C. For Internodal Channels, charges apply as appropriate either for the same wire center area or contiguous serving wire center areas, as specified in B7.7.4.A.4. *Internodal Channel charges will not apply for SMARTRing nodes that are located in the same room or bay.* (C)

- D. Nonrecurring charges for Customer Nodes and Central Office Nodes apply per node. Recurring rates for Customer and Central Office Nodes also apply per node. The rates for Customer Channel Interfaces apply for each origination and termination of an activated interface at the Customer Node. Nonrecurring charges apply for each interface which originates or terminates at a Customer Node. The recurring rate applies on a per Customer Node basis for each origination and termination of an interface at a Customer Node. (N)

B7. DIGITAL NETWORK SERVICE

B7.7 Self-Healing Multi-Nodal Alternate Route Topology Ring (SMARTRing) Service (Cont'd)

B7.7.2 Application of Rates (Cont'd)

- E.** SMARTRing service OC-3, OC-12, or OC-48 channel interfaces are associated with optical circuits within a SMARTRing service arrangement. These optical circuits may be provisioned as concatenated. When an optical circuit is provisioned as concatenated, the multiple STS-1s within the optical circuit are provided as a single entity with a single overhead channel. When an optical circuit is provisioned as concatenated at the time the circuit is installed, there is no additional charge for provisioning it as concatenated. When an existing non-concatenated optical circuit is requested to be reconfigured as concatenated, a concatenation rearrangement charge shall apply. This rearrangement charge shall also apply for existing concatenated circuits that are requested to be converted to non-concatenated. (T)
- F.** SMARTRing service interfaces may be ordered as asymmetrical (i.e., a circuit enters one node at a lower level interface and exits at another node at a higher level interface). For example, a customer may have a service that connects to a ring via an OC-3 interface at a node. That service is then transported around the ring and connects via an OC-12 interface to another of the customer's services. The allowable asymmetrical interface arrangements for the various ring sizes are as shown in Technical Reference TR-73582. The interface rates for asymmetrical arrangements are the same as the rates for symmetrical arrangements except as follows: (T)
- For lower level DS1 interfaces in an asymmetrical arrangement with an STS-1 interface, the DS1 within an STS-1 Asymmetrical Arrangement interface rate element applies in lieu of the STS-1 interface for the higher level termination. (T)
 - For lower level DS1 interfaces in an asymmetrical arrangement with a DS3 interface, the DS3 (Asymmetrical with DS1) interface rate element applies in lieu of the DS3 interface for the higher level termination of the asymmetrical arrangement (T)
- G.** In addition, customers with DS3 interfaces at the Customer Node electing to connect with DS1 services at a Central Office Node, must obtain a 28 DS1 Channel System, and the appropriate number of DS1 Channel Interfaces. The applicable rate elements for this arrangement are a DS3 Interface at the Customer Node and a 28 DS1 Channel System with DS1 Interfaces at the Central Office Node. The SMARTRing service 28 DS1 Channel System does not require a DS3 interface at the Central Office Node. A maximum of 28 DS1 Channel Interfaces can be activated for each 28 DS1 System utilized. ***Nonrecurring charges apply for each 28 DS1 Channel System. Nonrecurring charges also apply for each DS1 Channel Interface in a 28 DS1 Channel System. The recurring rate applies for each 28 DS1 Channel System and each DS1 Channel Interface in a 28 DS1 Channel System.*** (C)(T)
- H.** (Obsoleted, see Section B107) (T)
- The terms and conditions for this plan that appear in Section B107 apply to any customer who is receiving this plan as of March 30, 2006, and they will continue to apply until such a customer terminates the plan or changes service location.
1. (Obsoleted, see Section B107)
 2. The rates applicable to a month-to-month payment plan are subject to Company initiated changes.

B7. DIGITAL NETWORK SERVICE

B7.7 Self-Healing Multi-Nodal Alternate Route Topology Ring (SMARTRing) Service (Cont'd)

B7.7.2 Application of Rates (Cont'd)

H. (Cont'd)

(T)

3. (Obsoleted, see Section B107)
4. (Obsoleted, see Section B107)
5. (Obsoleted, see Section B107)
6. (Obsoleted, see Section B107)
7. (DELETED)

B7. DIGITAL NETWORK SERVICE

B7.7 Self-Healing Multi-Nodal Alternate Route Topology Ring (SMARTRing) Service (Cont'd)

B7.7.2 Application of Rates (Cont'd)

- I.** SMARTRing service Local Channel, Alternate Central Office Channel and Internodal Channel rates are distance sensitive. They are measured per quarter airline mile or fraction thereof from the customer's designated premises to the Serving Wire Center, Alternate Central Office, or other Customer Nodes. V&H coordinates are derived for each customer location through the use of longitude and latitude measurements. Using the V&H coordinate method as set forth in the NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. No. 4, compute the mileage, convert to quarter miles, and multiply the appropriate per quarter mile rate by the distance involved. Any portion of a quarter mile will always round up to the next quarter mile before determining the mileage and applying the rate. For channels which are less than one quarter mile, a minimum charge of one quarter mile applies. (T)
- J.** The SMARTRing service Interoffice Channel mileage is calculated per quarter airline mile between two directly connected central offices on the ring. Interoffice Channel mileage is computed by using the V&H coordinates method as set forth in the NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. No. 4. To determine the rate to be billed, multiply the appropriate per quarter mile rate by the distance involved. Fractions of a quarter mile always round up to the next quarter mile before determining the mileage and applying the rate. For channels which are less than one quarter mile, a minimum charge of one quarter mile applies. (T)
- K.** A nonrecurring charge applies for SMARTRing service Surveillance, one for each Customer Node and each Central Office Node, per SMARTRing service rearranged. A nonrecurring charge applies for Reconfiguration, one per reconfiguration of each STS-1 group at each node where such reconfiguration capability is desired. These rate elements apply when the Customer adds FlexServ service to an existing SMARTRing service. (T)
- L.** For SMARTRing service configured with a Virtual Packet Ring(s), an individual VPR requires multiple (i.e., two or more) Basic Shared Ethernet LAN Access Links. (T)

B7.7.3 Architecture

A. SMARTRing Service

The SMARTRing service configuration utilizes a multi-nodal ring architecture which is specified jointly by the Company and the customer. The minimum configuration provides dedicated DS3 (44.736 Mbps) and/or DS1 digital services and must include at least three nodes. One node must be a Central Office Node in Company Central Office. The remaining two nodes may be either Central Office Nodes in a Company Central Offices or Customer Nodes at customer designated locations, or one of each. Additional nodes above the three node minimum may be any combination thereof. The maximum number of nodes will be determined based on equipment capability. The nodes are connected by SMARTRing service Local Channels, Alternate Central Office Channels, Interoffice Channels and Internodal Channels as applicable. SMARTRing service may be connected to other high capacity services only at Central Office Nodes.

Applicable rate elements for this service are:

- Customer Nodes provide ring switching capabilities at customer designated locations other than Telephone Company Premises that are part of SMARTRing service. This rate element offers OC-3, OC-3+, OC-12, OC-48, OC-48+, OC-192, or OC-192+ network capacities. A summary of the channel interfaces available with each node are specified in B7.7.1 preceding
- Customer Channel Interface provides DS1, DS3, STS-1, OC-3, OC-12, OC-48, 10 Mbps, 100 Mbps, Fractional 1000 Mbps and/or 1000 Mbps connectivity that may take place at each Customer Node of SMARTRing service. The Customer Channel Interface rate element applies for every interface capacity that originates or terminates at a Customer Node
- Central Office Node (at least one), provides ring switching capabilities at Company Central Offices that are a part of SMARTRing service. This rate element offers OC-3, OC-3+, OC-12, OC-48, OC-48+, OC-192, or OC-192+ network capacities. A summary of the channel interfaces available with each node are specified in B7.7.1 preceding.
- Central Office Channel Interface provides DS1, DS3, STS-1, OC-3, OC-12, OC-48, 10 Mbps, 100 Mbps, Fractional 1000 Mbps and/or 1000 Mbps connectivity that may take place at each Central Office Node located on SMARTRing service. The Central Office Channel Interface rate element applies for every interface capacity that originates or terminates at a Central Office Node. Customers with DS3 interfaces at the Customer Node, electing to connect with DS1 services at a Central Office Node, must obtain a 28 DS1 Channel System. STS-1 interfaces may only connect to other compatible STS-1 services.
- Local Channel (at least one for each Customer Node which is directly connected to the serving wire center), provides for the communications path between a Customer Node and the serving wire center of the premises where located.
- Alternate Central Office Channel (at least one for each Customer Node which is directly connected to an Alternate Central Office), provides for the communications path, where requested, between a Customer Node and an Alternate Central Office.

B7. DIGITAL NETWORK SERVICE

B7.7 Self-Healing Multi-Nodal Alternate Route Topology Ring (SMARTRing) Service (Cont'd)

B7.7.4 Rates and Charges (Cont'd)

A. Self-healing Multi-nodal Alternate Route Topology Ring (SMARTRing Service) (Cont'd)

5. Customer Node (per Node)

	Nonrecurring Charge	Month to Month	24 to 48 Months	49 to 72 Months	73 to 96 Months	USOC	
(a) OC-3 capacity	\$415.00	\$2,200.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHNC3	
(b) OC-3+ capacity	415.00	2,700.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHNN5	
(c) OC-12 capacity	455.00	3,400.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHNC1	
(d) OC-48 capacity	455.00	5,220.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHNN8	
(e) OC-48+ capacity	455.00	5,850.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHNN9	
(f) OC-192 capacity	540.00	25,000.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHNN6	
(g) OC-192+ capacity	540.00	25,000.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHNN2	
6. Customer Channel Interface (per Node)							
(a) Per DS1	175.00	35.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHNBB	
(b) Per DS3	140.00	170.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHNZT	
(c) Per STS-1	190.00	220.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN13	
(d) Per OC-3, 2 fiber	190.00	255.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1D	
(e) Per OC-3, 4 fiber	190.00	515.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN15	
(f) Per OC-12, 2 fiber	340.00	745.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1F	
(g) Per OC-12, 4 fiber	340.00	1,490.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN19	
(h) Per OC-48, 2 fiber	420.00	1,600.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1A	
(i) Per OC-48, 4 fiber	420.00	3,200.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1B	
(j) Per OC-192, 2 fiber	1,600.00	7,500.00	NA	NA	NA	SHNE1	(N)
(k) Per OC-192, 4 fiber	1,600.00	15,000.00	NA	NA	NA	SHNE2	(N)
(l) Per DS1 within an STS-1 Asymmetrical Arrangement	330.00	25.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHNBS	(T)
(m) Per DS3 (Asymmetrical with DS1)	360.00	550.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1T	(T)
(n) Per 1000 Mbps 850 nm Multi-mode	400.00	740.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1K	(T)
(o) Per 1000 Mbps 1310 nm Single-mode	400.00	740.00	NA	NA	NA	SHN3K	(T)
(p) Per 10 Mbps	450.00	500.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1M	(T)
(q) Per 100 Mbps (3 STS-1) – Electrical	450.00	540.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1N	(T)
(r) Per 100 Mbps (3 STS-1) – Optical 1310 nm Single-mode	450.00	540.00	NA	NA	NA	SHN3N	(T)
(s) Per Fractional 1000 Mbps							(T)
- 50 Mbps 850 nm Multi-mode	450.00	520.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1O	
- 50 Mbps 1310 nm Single-mode	450.00	520.00	NA	NA	NA	SHN3O	(T)
- 150 Mbps 850 nm Multi-mode	450.00	560.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1P	
- 150 Mbps 1310 nm Single-mode	450.00	560.00	NA	NA	NA	SHN3P	(T)
- 300 Mbps 850 nm Multi-mode	450.00	600.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1R	
- 300 Mbps 1310 nm Single-mode	450.00	600.00	NA	NA	NA	SHN3R	(T)
- 450 Mbps 850 nm Multi-mode	450.00	640.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1U	
- 450 Mbps 1310 nm Single-mode	450.00	640.00	NA	NA	NA	SHN3U	(T)
- 600 Mbps 850 nm Multi-mode	450.00	700.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1V	
- 600 Mbps 1310 nm Single-mode	450.00	700.00	NA	NA	NA	SHN3V	(T)
(t) Per Flex DS1	360.00	45.00	Obsoloted ¹	Obsoloted ¹	Obsoloted ¹	SHN1Q	(T)
(u) Per 100 Mbps (1 STS-1) Metro Ethernet Backbone	800.00	500.00	NA	NA	NA	SHN1J	(T)
(v) Per 100 Mbps (3 STS-1) Metro Ethernet Backbone	800.00	540.00	NA	NA	NA	SHN33	(T)
(w) Per 1000 Mbps Metro Ethernet Backbone	850.00	740.00	NA	NA	NA	SHN34	(T)

Note 1: Obsoloted, see Section B107. The terms and conditions for this plan that appear in Section B107 apply to any customer who is receiving this plan as of March 30, 2006 and they will continue to apply until such a customer terminates the plan or changes service locations.

B7. DIGITAL NETWORK SERVICE

B7.7 Self-Healing Multi-Nodal Alternate Route Topology Ring (SMARTRing) Service (Cont'd)

B7.7.4 Rates and Charges (Cont'd)

A. Self-healing Multi-nodal Alternate Route Topology Ring (SMARTRing Service) (Cont'd)

7. Central Office Node (per Node)

		Nonrecurring Charge	Month to Month	24 to 48 Months	49 to 72 Months	73 to 96 Months	USOC
(a)	OC-3 capacity	\$385.00	\$1,400.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNH3
(b)	OC-3+ capacity	385.00	2,250.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNH5
(c)	OC-12 capacity	440.00	2,600.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNH1
(d)	OC-48 capacity	440.00	4,860.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNH8
(e)	OC-48+ capacity	440.00	5,490.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNH9
(f)	OC-192 capacity	540.00	25,000.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNH7
(g)	OC-192+ capacity	540.00	25,000.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNH6

8. Central Office Channel Interface (per Central Office Node)

(a)	Per DS1	140.00	35.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCB	
(b)	Per DS3	205.00	115.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNYT	
(c)	Per STS-1	190.00	150.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNO2	
(d)	Per OC-3, 2 fiber	340.00	255.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCD	
(e)	Per OC-3, 4 fiber	340.00	515.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNO4	
(f)	Per OC-12, 2 fiber	535.00	745.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCF	
(g)	Per OC-12, 4 fiber	535.00	1,490.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNC9	
(h)	Per OC-48, 2 fiber	650.00	1,600.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCJ	
(i)	Per OC-48, 4 fiber	650.00	3,200.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCK	
(j)	Per OC-192, 2 fiber	1,600.00	7,500.00	NA	NA	NA	SHNE3	(N)
(k)	Per OC-192, 4 fiber	1,600.00	15,000.00	NA	NA	NA	SHNE3	(N)
(l)	Per 28 DS1 Channel System (DS3)	195.00	650.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNW8	(T)
(m)	Per 28 DS1 Channel System (STS-1)	195.00	750.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCS	(T)
(n)	Per DS1 on 28 DS1 Channel System (DS3)	170.00	12.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCA	(T)
(o)	Per DS1 on 28 DS1 Channel System (STS-1)	170.00	40.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCG	(T)
(p)	Per DS1 within an STS-1 Asymmetrical Arrangement	360.00	25.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCH	(T)
(q)	Per DS3 (Asymmetrical with DS1)	400.00	550.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCT	(T)
(r)	Per 1000 Mbps	400.00	740.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCW	(T)
(s)	Per 10 Mbps	450.00	500.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCM	(T)
(t)	Per 100 Mbps (3-STS-1)	450.00	540.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCN	(T)
(u)	Per Fractional 1000 Mbps							(T)
	- 50 Mbps	450.00	520.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCO	
	- 150 Mbps	450.00	560.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCP	
	- 300 Mbps	450.00	600.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCR	
	- 450 Mbps	450.00	640.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCU	
	- 600 Mbps	450.00	700.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCV	
(v)	Per Flex DS1	250.00	40.00	Obsoleted ¹	Obsoleted ¹	Obsoleted ¹	SHNCQ	(T)
(w)	Per 100 Mbps (1 STS-1) Metro Ethernet Backbone	800.00	500.00	NA	NA	NA	SHNOJ	(T)
(x)	Per 100 Mbps (3 STS-1) Metro Ethernet Backbone	800.00	540.00	NA	NA	NA	SHNCX	(T)
(y)	Per 1000 Mbps Metro Ethernet Backbone	850.00	740.00	NA	NA	NA	SHNC5	(T)

Note 1: Obsoleted, see Section B107. The terms and conditions for this plan that appear in Section B107 apply to any customer who is receiving this plan as of March 30, 2006 and they will continue to apply until such a customer terminates the plan or changes service locations.